THE DEMOCRACY
OF
EDUCATION IN MEDICINE

Dr. FERNAND HENROTIN

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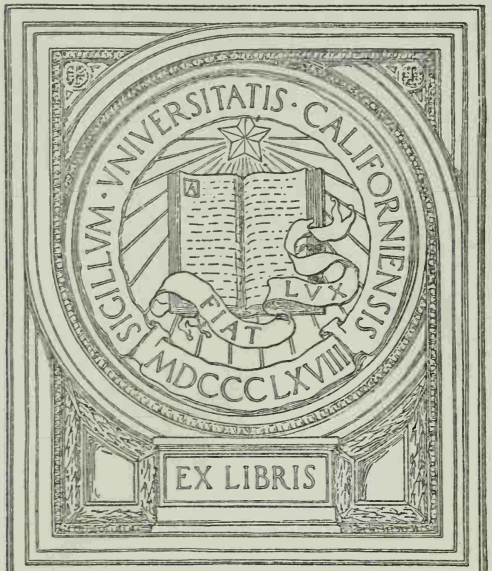

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BY

DR. FERNAND HENROTIN

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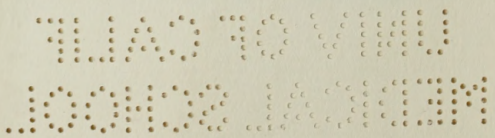

1903

PREFACE

More than fourteen years ago, at the solicitation of several of my medical friends, I became a member of the faculty of a post-graduate medical school. I acceded to their request more out of regard for the men engaged in the work than from my own conviction that such a school was needed, or that it would meet any demand from practitioners for advanced study. I well remember the doubt raised in my mind by my experience as a teacher in the clinics, as to the advisability of such instruction. We were apparently encouraging men to undertake work for which they were imperfectly equipped by previous training; on the other hand, I felt much sympathy for the pathetic attitude of these men in their sincere desire for more knowledge. As the institution prospered and the quality of the students improved my doubts disappeared, and my conviction is now well established that there is a large and growing opportunity for post-graduate medical instruction of the proper type. Two years ago, when I was honored by an election to the presidency of the institution, my associates and I determined that we

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would build and develop a school which would become a factor in medical education and be of recognized value and efficiency in the development of the physicians of the future. In furtherance of this determination, and after giving the subject much consideration, I have written this pamphlet indicating what may be done towards organizing an advanced post-graduate medical school.

"Whatsoever of morality and of intelligence; what of patience, perseverance, faithfulness of method, insight, ingenuity, energy; in a word, whatsoever of strength the man had in him will lie written in the work he does.

"He that has done nothing, has known nothing. Vain is it to sit scheming and plausibly discoursing; up and be doing. If thy knowledge be real, put it forth from thee; grapple with real nature; try thy theories there and see how they hold out. Do one thing; for the first time in thy life do a thing; a new light will rise to thee on the doing of all things whatsoever."—Carlyle.

"It would almost seem as if some phantom of the ceaseless pursuit of food which was once the master of the savage was still hunting the civilized man; who toils in a dream as it were, haunted by mere dim unreal hopes, born of vague recollections of the days gone by. Out of that dream he must wake and face things as they really are. The conquest of nature is complete may we not say? And now our business is and has for long been, the organization of man who wields the forces of nature. Nor till this is attempted at least shall we ever be free of that terrible phantom of fear of starvation which, with its brother devil, desire of domination, drives us into injustice, cruelty and dastardliness of all kinds; to cease to fear our fellows and learn to depend on them, to do away with competition and build up co-operation, is our one necessity."—William Morris.

"Instruction is not the principal part of education; for human worth is more essentially and more intimately identified with character and heart than with knowledge and intellect. What we will is more important than what we know, and the importance of what we know is derived largely from its influence on the will or conduct. A nation like an individual re-

ceives rank from character more than from knowledge; since the true measure of human worth is moral rather than intellectual. The teaching of the school becomes a subject of passionate interest through our belief in its power to educate sentiment, stimulate will and mold character. For in the school we do more than learn the lessons given us; we live in an intellectual and moral atmosphere, acquire habits of thought and behavior; and this rather than what we learn is the important thing. The man comes first; and scholarship without manhood will be found to be ineffectual."—Bishop Spalding.

"Culture does not consist in the knowledge of any particular subject or set of subjects, nor is it the result of any order or method by which studies are taken. Its essential feature is in the attitude which its possessor holds towards the world and towards the best that has been or can be thought or done in it."—David Starr Jordan.

"Americanism is not a local principle; it is a universal principle. The historic characteristic of the American spirit is its supra-nationalism, its universality. Its mission is to show that the grounds of national prosperity are in the eternal unity of things, so that the way of national self-realization breaches all the walls of protection and exclusion, and commits the national destinies to the free-flowing currents of the world. The uniqueness of this land is that it is the cross-roads where all ways meet."

"Since every man is tangent to the universe at just one point, his happiness consists in his doing one thing at a time and doing it exceptionally well. Specialism is the law of creative life when specialism means the grip of the creative spirit of a man—laying hold of the world in his own peculiar way. But specialism is the death of art and joy when it is negative and

compulsory—the subjugation of the spirit under the yoke of economic necessity.

"Now, the university, in its original and final definition, is the stronghold of the affirmative and creative intellect. The university idea is the beginning of the whole of knowledge punctually to bear upon this present place and moment. But knowledge has no wholeness to the merely passive mind—is only a collection of irrelevant details, a medley of useless curiosities. It acquires a wholeness and the university-idea becomes realizable only when the intellect is penetrated with faith and actuated by the passion of the human ideal."—Charles Ferguson.

"If the lower school cover the educational process of childhood, and the high school covers the process of youth, then the university must cover the process of manhood and womanhood. It must be simply a process for carrying the social purpose in the adult world and must have the same purpose as the schools, the increase of human wealth and the fitting culmination of the formal educational process.

"At heart the university is aristocratic in that olden sense which made excellence an exclusive quality and not a general possession, and it is, therefore, much given to making distinctions.

"Not one of representative universities has yet seized upon the full idea of Democracy that the university is the process of manhood and womanhood, and as such is open to everybody and is called upon to serve all in the smaller or greater measure of their needs rather than in the prescribed measure of its own elaborate requirements.

"The university must take hold of its work, not as a distinct institution, but merely as a part of that educational process which covers the whole of life and has for its sole function the realizing of the social purpose; it must take men and women as it finds

them—not selected, favored men and women, but men and women as they are—and must carry out the social purpose in them, the creating of organic human wealth, the bringing about of human accomplishment and beauty and power. Just as it is a place to gather all knowledge so it is a place to gather all adult seekers after knowledge—it is a process of the whole, it must represent a glorious ideal, an institution standing in our midst as the upbuilder of the best truth we know and ready to give the truth in small or large measure to the least and to the greatest. And this larger role the universities have it in their power to play if they will but open their doors to all men and women and will give the same welcome to the hard-pressed student worker who can afford time for but one course that they now extend only to those who take many courses and ostensibly give their whole time to it."—C. Hanford Henderson.

"The growth of belief in the necessity of popular education is a consequence of the spread and strengthening of the democratic ideal. The history of the world is being seen not to be the history of dynasties but the story of the people and that to each individual man there is a mission and there should be an opportunity.

"This marvelous progress in the educational field has as its logical development the provision for adult education, or rather, post school education."—Dr. Henry M. Leipzinger.

"By democracy we mean not a fixed theory of the state, not a particular form of government. We mean a tendency, a spirit, a current of ideas and aspirations. It is a sense not of the actual equality of all men as a fact, but of their potential equality as a hope. It is the endeavor to realize this hope, not by the concentration of power in the hands of a few but by the diffu-

sion of power in the hands of the many. The removal of those ancient barriers of caste which have ceased to represent actual differences of character and intelligence and have come to stand in the way of general progress; the absolute denial that authority over one's fellowmen can be inherited and the consequent affirmation that it must be earned by merit and maintained by service; the doctrine that public offices are public trusts and not private spoils; the substitution of natural for artificial distinctions; the belief that the best way to fit men for responsibility is by conferring rather than by withholding it; and the effort to prove this faith by widening the bounds of suffrage as rapidly as may be consistent with public safety—these, it seems to me, are some of the notes of true democracy, as we see it working out its salvation with fear and trembling, in our own country. A democracy, falling into the hands of those who do not understand what it means nor at heart believe in it, swiftly transforms itself into a tyranny or into a anarchy. Physical force and material wealth may afford a sufficiently firm basis for a despotism, a bureaucracy, an imperial system. But a republic must have moral and intellectual foundations, and these can never be laid in the community save by first laying them in the individual. A kingdom is as wise, as strong, as righteous as its king, but a republic must measure its wisdom, its strength, its righteousness by the average man. The corner stone of democracy is culture."—Henry van Dyke.

GENERAL SCOPE OF AMERICAN EDUCATION

Throughout the world a strong but subtle power is felt which is constantly growing and achieving wonderful results. It is called "Americanism." One of the expressions of its existence is a generalization of group ideas known as public opinion which moves masses and nations toward order and harmony. This force to a great extent is the result of American pedagogy, which in its modern development, untrammeled under a most beneficent form of government, is analyzing, organizing and developing the art of education on lines which are surprising the world; and such is its progress that it would seem as if the sun of enlightenment were rising in the West to harmonize civilized mankind. This advancement is not due to the greatness of our individual institutions, for technically we are still far behind Europe in our schools and universities, and in their appliances and advantages. It is not due to our educational organization, for, as Professor Thwing says, "Education in the United States is not so much disorganized as it is unorganized. It is not so much unorganized as it is the subject of cross and various organizations." Strange to say, it is probably a fact that this very looseness in school

organization, combined with its universality, has brought about these great results. The very diversity of higher schools, the multiplicity of smaller colleges, has led to the stimulation and development of the elective system; has taught the American to choose his own studies and has further led to the complete establishment of the principle expressed in the German word "Lernfreiheit," which, liberally translated, reads "freedom in teaching, liberty in learning." It constantly results in the true survival of the fittest as applied to institutions as well as to individuals. It has helped to develop American constructiveness and, as Bain would say, has given "new powers by trial and error."

To show the character of American education let me quote from President Jordan. He says: "A child is better unborn than untaught. A child, however educated, is still untaught, if by his teaching we have not emphasized his individual character. All education must be individual and fitted to individual needs. That which is not so is unworthy of the name. To furnish the higher education that humanity needs, the college must be broad as humanity. To fit the man into schemes of education has been the mistake of the past. To fit education to man is the work of the future. Only in our day has it been recognized that the common man had part or lot in higher education. The essence of the new education is individualism. Its purpose is to give to each young man that training which will make a man of *him*."

The demands of modern education have so greatly increased that even with elective opportunities the work has practically been confined to curriculum and elementary theory. Although European methods may have tended to suppress individualism, their superiority in directing students from primary grades to their destined future has much to commend it.

The educational ideal of America is essentially different. While not neglecting the memorization of abstract elements, it aims to allow the utmost freedom to the imagination and the philosophic development of the individual. The free man in this free land could not be restrained by fixed lines, mental individualism perforce had full sway, and modern educators—themselves of the same type—recognizing the beautiful and powerful in the new method, entered enthusiastically into its development.

Interwoven with the letters of his alphabet, with the lessons he reads, with the history he learns, at his play and everywhere, the American child finds the word "freedom"; and his youthful imagination, no matter how it interprets the word, pushes him into individualism. Much earlier than we are apt to believe, in the depths of the boy's heart springs a cherished desire, variable in accordance with his innate temperament and the influence of his surroundings. Back to our tenderest years we can trace these silent longings. To some it means license, to the best it is the tap-root of ambition. Formal compul-

sory education is impossible in our country. Around the growing child must be spread fertilizing influences that it may grow to wholesomeness and bear beautiful flowers and perfect fruit. As Henderson says: "If education is to be a practical process, is to succeed, it must act through the channels of the inner life and must reach the mainspring of human action, the very source of power." In other words, the emotional impulses in the American youth form the source of his power. They cannot and should not be subdued. The province of the educator is that of guidance.

With such elements and such a system it is not to be wondered at that education in this country has frequently been called haphazard; that the lack of directness invites criticism; and that, while all Americans have an education, in so many instances it is fragmentary. Yet Europe stands amazed at the results achieved; Europe where all educated men are exceedingly proficient. In America men of culture are as numerous, proportionately, as in any country, if by that term be meant proficiency in the chosen life work, but in general accomplishments much is still to be desired.

In order that the destiny of this great people and our hope of being a model state may be fulfilled, modifying, refining and finishing elements must be introduced. What is more natural to believe than that what is necessary is the finishing of the education of the individual? You cannot and you should not stop the headlong, emotional impulse of the

youth, for it is the element of his power. You cannot control the multiplicity of schools, for they are the choice of the citizen and he is king. You cannot introduce a system direct and definite, for you cannot control the units. You cannot stop a boy when he takes the bit and starts in life, for he is following the secret desire of his heart, which Americans believe is in the line of education. You should not hinder any man intent on pursuing his own life in his own way, for you may be robbing the world of a treasure.

But you can have schools and teachers and appliances, working schools, institutes of learning and places of intellectual worship, which time may prove of value, where a man overcome by the impetus of his impulses, who feels the need of elements which he failed to grasp, may come and pick up the threads of his interrupted education, and having found the missing link, may return to work out the problem of his youth; where the man who has grappled with the problem, and has failed in certain results, may retrace his steps, find the parting of the ways, and, having taken his bearings, go joyously on; where the student failing from poverty, or the artisan needing tools may find the necessary appliances; where the man working alone, having solved all problems within his capacity, may come to meet his fellow-workers in the same field and, by comparing, may get new light on abstruse questions, receive inspiration from master minds and courage for further conquest. In fine, places where broken educations are

mended; where partial educations are finished; where the highest individual education can be made higher by combination of efforts and where general culture can be acquired.

Working schools, post-graduate institutions, extension courses, and all forms of post-graduate instruction seem to us to be an absolute necessity and a necessary adjunct to the rapid, haphazard education of this land of many and all sorts of schools. Following the years of discrimination and retentiveness, comes a higher exercise of constructiveness and analytical judgment in which the guidance of teachers and the stimulus of a school are still needed. In Europe the dialectics of Abélard and the building of the old universities led to the establishment of a university standard when the masses barely knew the arts necessary to earn bread, and lower schools were established to fit the existing conditions. America is still struggling with this problem in her own democratic way and the results are already evident. In the Old World universities were built to strengthen and uphold the church, to polish and distinguish noblemen and gentlemen, and they are now governed by a bureaucracy which, though most skilfully and liberally managed, has an inflexible code; namely, absolute loyalty to the reigning power. This system is, of course, bound to perpetuate class distinction in spite of the constant reiteration of the principles of modern Humanism.

In this free land the State furnishes the means which the people expend with absolute freedom, for

they elect their own school authorities, and this has created an infinite number of peculiar educational problems which were hardly to have been foreseen. State legislatures, because of their interpretation of equal rights to all applicants, are constantly giving power to all manner of institutions to confer degrees. In many states four or five men, simply upon application or by reason of political influence, irrespective of qualifications or responsibility, may found a college or university. This would seem certain to lead to complete disorganization and consequent failure, but as a matter of fact, no nation has a higher average of intelligence and education; although the proportion of very highly educated men is less than in Europe, the general average is more than sustained.

Must the State become imperialistic in its management of the school problem and refuse license to teach? This is impracticable and the people will never submit. Every American who desires to teach is allowed to impart his knowledge to any man who is willing to be taught by him, and that right is in a way guaranteed him by the Constitution, provided he use neither fraud nor deceit. How, then, is the educational standard of American culture to be elevated and maintained?

In the practical application of applied sciences the intelligent portion of our people were not slow to make use of the advantages of university teachings and it may be held that, as regards that which applies to industry and commerce, engineering, arch-

itecture and such, Americans can be reasonably well satisfied with our present standing; but in the academic direction of letters, classical courses and scientific studies the cultural standard of our citizens and the attainments of our educators undoubtedly leave much to be desired. In the medical profession the best is still imported. Our slow progress in this direction can hardly be understood without a proper appreciation of the underlying causes due to our form of government. The governing power in this country emanates from below, from the people, whose judgment can hardly be expected to guide our educational agencies to a scholarly efficiency which they do not realize. For this reason our advancement in certain directions was hardly appreciable and our great men and real experts were few, and most of these finished their studies abroad. Private universities furnished us yearly with a small group of reasonably finished scholars, whose talents, however, were hardly recognized by the mass of people, and these gradually drifted into commerce, or at least lost their ideals, and the race went on bartering and bargaining for worldly goods. The university and the reigning power were too widely separated. The gap was filled by the establishment of the State University, an event to be recognized hereafter as noting the birth of a new era in the advancement of modern American science. It brought the university work and its ideals home to the common people and awoke the older institutions from their dreams of tradition. Now all educational

forces are rapidly organizing for proper co-ordination of their respective functions and the day seems near at hand when the American may become distinguished for his scholarly attainments. The State University has become the agency through which the necessity and methods of forward movements may be demonstrated to the people at large and their adoption secured by practically illustrating the important relation of scientific knowledge to practical advancement and material welfare. An enthusiasm is being kindled which will place a value upon the production of original research and minimize the licentious tendencies of the freedom accorded our citizens. The mission of the university perforce must be the universal education of the common man and the establishment of class distinction, which is unavoidable, upon broad and practical educational lines. Degrees must of necessity become baubles, for all cross-roads schools can confer them, but schools of renown will exist forever and the name to the degree will attest its value.

The university is to set the pace, and its creed is to be not only universal but continuous education for all. As the masses of commen men push from below those above must also rise; and as there is no end to knowledge, and as men must after a certain time educate themselves in individual and special lines, schools of all grades for men of all ages and of all kinds will continue to increase; and that the destiny of Americanism may be accomplished and the standard of excellence never be lowered, post-grad-

uate schools and institutes of individual, specialized types must be increased.

The development of individual education and the great latitude permitted and encouraged in the elective system has, however, caused difficulty in utilizing the knowledge of different special students towards the solution of problems demanding the best combined efforts. Specialization has so far advanced that few are competent to master more than is comprehended in their particular spheres, and the appreciation of this fact is calling forth the best endeavors of professional teachers. Fortunately, the spread of what is termed the university spirit among educated men and women is helping greatly in the solution of this perplexing problem and has resulted in the establishment and advancement of post-graduate schools and the recognition of what is known as the group idea or opinion. In no profession is there more need of popularizing these elements of modern higher education than in that of medicine.

The present age is one of adjustment and coordination of systems toward certain comparatively modern educational ideals. The significance of the term "education" has been so enlarged as to include practically the entire span of active life, and the modern man is always, as it were, in school; so long as he retains his activity in his chosen profession or trade he finds it imperative to keep up the study of his life work and, in many cases, to leave that work for a time in order to take cognizance of

the research of others in his chosen field. During the last century the science of education has received a great impetus, and the problems of primary and secondary education have received the attention of the best minds of the world. In America especially, while the courses of studies have been enlarged, the needs of the individual student have received their due allowance. Primary and secondary education are now being co-ordinated, while the relation of the latter to more advanced study is the subject of conferences between their respective leaders.

The time has now arrived to take another step forward and organize professional and educational centers which will meet the demands of men who have already gone out into the working world, but who have found from practical experience that, in order to keep abreast of the times, they must return to school for a while. This must, however, be a school for the individual with unity of purpose, allowing a large freedom of individual choice. The American system of education, both public and private, is being extended with such rapidity that it embraces all sorts and conditions of men and evinces a certain intellectual hospitality, which speaks volumes for its ultimate triumph and results. Millions are being donated, both by the state and individuals, to found schools and colleges. The great captains of industry are co-operating with the leaders of the liberal professions to supply every possible demand which students can make on the various institutions

of learning. The great teachers of this country visit at frequent intervals the leading universities of Europe and incorporate all their best features into the American system, but never as slavish imitators: They simply use the results of the more patient experiments of foreign teachers, and when they are an assured success, adopt them; thus saving time, which means vastly more than money to the American, so anxious is he to enter into life. This saving of time is the keynote of the needs of to-day.

In Germany and France the primary education ends when a child enters the Gymnasium and the Lycée, which is at the age of from nine to twelve. This period is practically covered in America by the grammar course of the public school system. The Gymnasium and Lycée courses extend over nine or ten years and cover the American high school course and approximately the first two years of the college course. When a boy enters the German Gymnasium or Realschule, or the French Lycée, his parents practically decide on his future profession and from that time until he graduates from the university, in the case of a professional man, his training is directed towards the selected profession. In America a different method prevails; no parent would presume to make so momentous a decision in the first nine or ten years of a boy's life, and the student often graduates from high school, and in many cases even from college or university, without having decided on his life work. The German or French student finishes his university or professional

studies at 25 to 26 years of age, while the American of the same age is often practicing his profession. President Thwing characterizes "this haphazardness as the bane of the American system," and says further that "the problem of the union of unity and individuality must be solved in order to correct this unfortunate tendency, a straight line must be drawn from the primary to the professional." When this has been accomplished, much time can be saved from the primary and secondary periods of education and the time of the university, professional and post-graduate terms correspondingly lengthened. Granted that the student period is amply provided for, what facilities are then offered for post-graduate work? The American universities provide certain courses on advanced lines, but these have been so limited that it is customary for men who can afford the time and money, to continue their professional studies in foreign universities. Only a very limited number can avail themselves of this method of securing advanced training. There exists in America a great need for a system of post-graduate courses which shall conserve a certain unity with those provided by the universities and which will at the same time allow the greatest liberty of choice for the students.

The foregoing statements are made with a view of illustrating the general characteristics of European and American education, but with no intention of claiming future superiority for either—being conscious of a lack of pedagogic authority. Is it best

to give a boy excessive freedom in choosing his life work and allow him to pursue his studies in the haphazard American way, yielding to his every impulse, colored by the intensity of his desire to attain a certain end, and allow him to neglect many desirable complementary elements which the judgment of his teachers may deem expedient? Is the latitude given to the elective system advisable, and does it not frequently lead to a selection by the scholar of that which he likes rather than that which is best for his future, and does not the self-chosen elective often deteriorate the citizen, the scholar and the man? Granted that the youth at school is idealistic, is this idealism the result of his choice or the inculcation of his teachers? Is the non-productiveness of purely American scholarship in most liberal professions due to the prevailing liberality in electives or to the inefficiency of our pedagogues, in other words, to our misunderstanding of a university standard?

These questions, suggested by Münsterberg's well-chosen criticisms, could hardly be answered at present. Systematized American education is only just beginning to arise out of the chaos natural to pre-existing conditions. The forests had to be cleared and thousands of square miles of prairie land to be broken to cultivation before the pioneer people could find time to demand more than the mere elements of a primary education, and universities when they came were necessarily of a pioneer type.

The great problem, however, was to fit a sys-

tem to the democratic type of this government by the people. One has but to read of the vicissitudes of the founding of the universities of the Old World from the twelfth century to realize the struggle necessary to reach the productive scholarship standard of the present. To attain that high degrees in America, with its millions of changeable rulers, demands a proselyting form of organization, which involves an immense difference in the ordinary functions of a university. It means the education of the masses to a realization of the conception of education possessed now by only a few master minds. Not only that, but progress can only obtain by methods without precedent, with their unavoidable errors. The State Universities, directly founded by the people, are creating the demand for higher education, and the higher class of private universities are to standardize the supply.

Many of the mistakes of the past are due to the changeable character of our national administration and the resulting peculiarities of the American. It was no small task to build up a government on hitherto untried lines, to stamp citizenship with proper moral type, to afford shelter and protection to millions of foreigners with their strange traditions and at the same time to establish and maintain an educational system which would co-ordinate necessary requirements; and it is not strange, therefore, that we have not reached the highest degree of scholarly production. The mass of citizens who have established the lower half of our educational

system are slow to comprehend that our constitution is designed to furnish equality of opportunity and cannot be made to bring about equality of men, and that aristocrats of learning are not only desirable, but an absolute necessity to future progress. They are constantly clamoring for more educational facilities, and as in this nation public opinion, when made emphatic, is always obeyed, colleges and universities are striving to supply the demand. However, while many of our most intelligent and greatest pedagogues would seriously protest against any interference with the existing freedom of education, notwithstanding the apparent inadequacy of the system, they all recognize its various shortcomings and the many undesirable peculiarities which result therefrom.

Science and the university stand for the progressive exploration of all truth and nothing but truth, no matter what unpleasant surprises may follow, and the directing agencies of the university stand for the eradication of any resultant evils. The ideal of the university must be broad as humanity. It has commenced the education of all mankind and can never retrace its steps. It is slowly strangling its arch enemy, dogmatism, and in this broad sense, the university is the sheltering spirit which is to bring peace, if there ever is to be peace. That quintessence of spirituality known as the university spirit refers neither to Harvard nor Oxford nor Berlin nor any other, but means a universal element especially emanating from these among other sources, which

shall conquer the civilized world, unveil the truth in all its beauty, and prevail on men to be true through knowledge and charity. Where this ideal prevails, crime is impossible. The perfection of the ideal is in the man who, knowing all, remains pure. True religion and the university spirit are never incompatible, and with many are identical. The university idea has a creed but no dogma. Its creed is the belief that universal education is the cure of all moral ills and will bring the consummation of the happiness of mankind. University youths and men, while under the influence of their ideals, seldom sin and never condone crime. The boy entering and the man leaving are usually lofty in mentality and are good men and reliable citizens. The weakness in the whole system of the development of universal education seems to us to be the evanescence of the university spirit or ideal. If you are of middle age compare your realities of to-day with your ideals of commencement day.

It would seem as if every man's educational agency released him much too soon, and that it should be the aim of every educational institution to keep a rein on its sons to the very end of their active careers. There comes a time in the life of the masterful youth when he shakes off pedagogic shackles and takes up his own educational lines, following his bent because more pleasing or, in his judgment, more necessary and valuable. There also comes a time to all men when their educational institutions bid them farewell and leave them to work

out their own careers. Thereafter each must judge of his own needs and bear the burden of his own mistakes. It is the critical time of every man's existence, and this stage is strewn with moral and mental wrecks. At this moment, when he most needs assistance, all ties are severed, and his school, teachers and guides disappear.

I am now speaking of the moral side of education, and of the possibility of checking or eradicating the evil tendencies of the loose American system, which, by fostering individualism and specialization, develops license and selfishness and destroys orderliness and duty, to the detriment of the integrity of the family and the welfare of the home.

The grand promise of our American nature-system of education need not be too freely condemned, for it is not to be expected that such well-recognized, inimical conditions are to be allowed unchecked to rot the core of American worth. The country is young and its armies of workers are not yet disciplined. It is no wonder that in so rapid a march disorganization with its accompanying disorder should still prevail. Myriad agencies are already at work for correction, managed by thousands of able generals, and the watchword is "Culture." The sensuous theater, the low groggery and the gambling den will vanish with the disappearance of the raw recruit. The home and the family will endure when refined by proper education.

Thinking men must feel that, in ways to be devised, this betterment of conditions will be brought

about, provided we can maintain the purity of our university ideals, for from this comes the inspiration. Within the college walls, inspired by its teachers, and moved by its traditions, the boy dreams and plans. Suddenly he finds himself struggling with the cohorts in life's battle; the protecting and inspiring advisers gone and only the tradition left. No wonder many fall by the way, lured by siren influences.

The fatal time for high ideals is during the strenuous struggle which follows the closing of the school door. Why not other schools then? And why not schools always? They say that few men originate anything after the age of forty. Who knows what perfect productions they might not exhibit with their experience had they still the school, the teachers and the ideals? Schools of architecture, that the citizen may retain his ideals of symmetry and not mar our cities with grotesque productions; schools of forestry, agriculture and gardening; of sculpture, music and painting; schools of crafts, of law and of sociology; and of all other varieties which time shall indicate to be of value for the universal and continuous education of the American man.

The twentieth century is opening with an immense array of forces marshaled for the advancement of educational conditions, which are bound to prove corrective to the weaknesses heretofore existing. As soon as evils and wrongs become plainly discernible, antidotal measures become evident, showing the alertness of the people. So long as this

balance is maintained, progress is certain and no revolutionary methods can prevail. The present titanic struggle between capital and labor is simply the endeavor of great forces to coalesce. Between them public opinion swerves to and fro and becomes the arbiter. Both sides have rights which they are bound to maintain, but after all how admirably conditions readjust themselves and new bearings are taken after each battle for supremacy. But when both come out in the open for a fight to a finish, how soon the American group-opinion ripens to find a solution and end the warfare that brings misery to all. The more complex the problem, the more the people become concerned, until, after exhaustive discussions, a gradually increasing chorus proclaims the way, and another milestone is added to the road of progress, or another mistake rectified.

At least as much, if not more, of these results are obtained by post-graduate as by preliminary education. By post-graduate education is meant the education of men and women which they acquire of their own volition after their youth is passed. It matters little whether their primary foundation be slight if later on they elect to concentrate their thoughts in any given direction, and become reflectively serious in the search for instruction.

The natural organizer of these thousand and one educational agencies is the university. The time is past when the teacher is to be considered by the masses as simply an individual to point out the

lines of a book. Teachers have really been the preservers of all our traditions in the past, and the agents of civilizing progress. That they were originally striving for the glorification of their religious beliefs only emphasizes the value of their services. Certainly modern instructors have little reason to complain that their labors are not appreciated, for few movements of importance are inaugurated without their advice and assistance—a proper acknowledgment of the immense debt of the world to pedagogy's representatives. The philosophic teacher and advisor of old was supposed to retire into solitude, and, after communing with nature and his own thoughts, either by word or scribe, to point out the path. Now, in the rushing throng, he studies man and human nature, notes events, draws conclusions, and advises, encourages, restrains or corrects, for here and at present all are doing, working, straining; and because art and books are found in the shops and tools are carried into the school, we begin to hear about the love of work and the art of craft, and it is not alone the rising craftsman who says it, but also the scholar from the university who is becoming a worker even with his hands. Whether this be the age of the hand, the head or the heart, the strenuous progressiveness of this era is stimulating our educational advisors to their utmost, for they realize how much guidance is necessary. We are said to be living in the beginning of the rule of the common man, or the age of the hand, or in the industrial era; but whichever it be, it means that

we are becoming democratized as a natural result of universal education. Class distinctions are not based on the old lines, neither are these lines so defined. The laborer is studying, the college has manual training, and the precepts of Carlyle, Ruskin, and Morris are much in evidence.

They may be dreamers who believe that the coming democracy is a natural evolution, though they can hardly outline a co-ordinate system; but it is a most attractive contemplation to recognize by many signs that through education there is hope that for every man there may be work which he loves, because upon it he can leave his individual stamp, and that a democracy is possible which possesses no lowering element and means neither selfish socialism nor brutal force, "a conception of the co-ordinated, specialized ideas of factory, studio, school, church and state" (Triggs); and which may demonstrate the beneficent wisdom of the provision in the Constitution that all men are equal before the law.

Note how far this movement of educating the grown man has already developed in answer to the demand and through the initiative or with the encouragement of some distinct educational agency. It is not a dream. The education of democracy is well advanced and the future state is being outlined. Educational systems are being modeled to fit the unalterable primary conditions of freedom of education, by fostering and developing subsequent culture. Significant is the work of that giant organ-

izer, Dr. Harper, who says so little but pushes ever onward. Note the direction of his efforts: Condensation and directness in secondary and college work and expansion of all post-graduate elements. This means at least democracy of education, evolution of the future state, culture of its citizens, and the fulfillment of the mission of the university. It is to be accomplished by mending, continuing, perfecting and finishing the education of youth; by the establishment of schools of art and poetry and music; of schools of industry and liberal sciences, of law and sociology; of laboratories and modern shops for all men at all times. These now exist, but must be multiplied, and men of the universities must daily bring their fellow-men in and the doors must be always open. We say, "doors" advisedly, because it implies the presence of buildings devoted to these purposes.

The Greeks emphasized their teachings by constantly keeping before their citizens beautiful statues and paintings, and temples of chaste and classic architectural designs, and so in the great cities of modern times, the presence of beautiful buildings devoted to educational uses exerts a power for good beyond their practical use. If every citizen could be induced to spend a few hours of each year in an educational temple, though he studied not, the state at large would be benefited. In this age of industrial art, and laboratories especially, impulse to advancement and stability of results is materially enhanced by a *locus habitans.*

University fraternities have often been the unknown factors which prevented youth from evil, for there crime is never condoned, and societies, affiliations and organizations which keep men in an educational atmosphere all tend to make permanent the university spirit. Many philanthropic, historical, commercial and political societies are eminently educational, and owe their origin to the demand for adult instruction to correct the pernicious influences of free educational systems run riot. In almost all of these associations the university professor is a participant, a promoter, or an active encourager, indicating how naturally the modern university is awakening to the importance of all which relates to the practical, intellectual and moral progress of mankind.

Educational conditions in America may be summed up as follows:

European systems of education aim to promote scholarship and to make citizens conforming to a fixed form of government. The American system, to make ideal men and women who stamp citizenship.

The type of the first being better outlined, the education is more direct; ours being ideal, the system is consequently variable and fluctuating.

Freedom of the youth and free choice of educational methods lead to unending individualism and specialization, but bring with them confusion and lack of directness, with many attendant evils.

These defects become evident when men leave their schools and lose their ideals, and the cure lies in perpetuating the latter by the universal development of culture. Practically this condition will obtain by persistence in the education of the common man and the co-ordination of specialties through organized post-graduate systems, and the extension of the school so as to span man's active life.

In the accomplishment of this task by the establishment and maintenance of educational standards lies the mission of the university.

The exact methods to attain this end are barely outlined, but there are details without number becoming discernible, blazing the way to the generalization of what, in a broad sense, is termed the university spirit. Threatening evils, due to insufficient education of the ruling masses, demonstrate the necessities of the hour in this direction. Errors will be corrected by trial and indicated by group or public opinion.

Compulsory labor will supplement compulsory education. The machine will do the drudgery and the monotonous; art shops and industrial schools will cover the land, and scholarly, cultured workers will form the majority to govern the coming people, refined by democracy of education. Without work there can be no happiness. Work of choice is work of love. When every man has a clear conscience and the work of his choice, the happiness of mankind will be secured.

When on the grave of dogmatism this ideal democracy is blossoming in perfect form, the aim of the university will be attained.

To show the importance of co-ordinating medical specialties and the necessity of an organized post-graduate system to fit the present and coming conditions will be the subject of the remaining pages.

"If the license to practice meant the completion of his education how sad it would be for the doctor, how distressing to his patients! More clearly than any other the physician should illustrate the truth of Plato's saying—that education is a life-long process. The training of the medical school gives a man his direction, points him the way, and furnishes a chart fairly incomplete for the voyage, but nothing more.

"Nowadays, to master even the smallest specialty requires concentrated effort of years' duration and to counteract the benumbing influence of isolation a man must scan the wide horizon of Pathology and must cultivate ardently the general interests of his profession.

"To maintain our mental freshness and plasticity requires incessant vigilance, a deep and enduring interest in the manifold problems of medicine and a human interest in the affairs of our brotherhood—if these do not suffice nothing will. The great republic of medicine knows and has known no national boundaries, and post-graduate study in other lands as well as at home gives that broad mental outlook and that freedom from the trammels of local prejudice which has ever characterized the true physician."—Dr. Osler.

"Many circumstances under our present educational régime, combine to withhold education from the great majority of those who have missed its early advantages; and since the missing of early advantages is usually the misfortune rather than the fault of our multitudinous irregulars, we are, it seems to me, treating their aspirations with manifest harshness and injustice."—C. Hanford Henderson.

"Most of our professional schools have arisen in obedience to the law of supply and demand, and their methods and ideals are often wholly at variance with those of the colleges. There have been some good results arising from these conditions. The progress

of evolution is most rapid where the chains of tradition are weakest; these have been strongest in our colleges, and of all our schools the colleges have been until lately the least progressive. The chains of tradition have been weakest in our professional schools; but all they have gained in freedom has been more than lost by their separation from other educational agencies. The bad results of our lack of correlation have been numerous and positive. Much of the best of the educational thought of the day is devoted to the work of bringing together and properly dovetailing the scattered parts of our system.

"The medical schools of the future will be sustained as necessary parts of university work, and the freedom of the university professor will be the right of the teacher of medicine. When a medical school is well indorsed or has the state behind it, it can exact the standards the good of the profession requires. Till then it is at the mercy of the demands about it. Its students are the product of its surroundings, not the choice of the school itself. A true man can not be used for base purposes, and professional training implies professional honor. Only the highest standards can purge the profession of parasites and quacks, only honest knowledge can save us from Christian Science and the almanac. Some day the boundary line between general and professional education will be broken down to the advantage of both. We shall have the 'school where any person can have instruction in any study,' and the study of the humanities need not end where the study of the human body is begun. Let each come who will and let each take what he can and let the ideals be so high that no one will imagine that he is getting where he is not. Scholars can be made neither by driving nor by coaxing. In any profession the inspiration and the example of educated men is the best surety that the generation which succeeds them shall be likewise men of culture."—David Starr Jordan.

GRADUATE SCHOOLS IN MEDICINE

THEIR NECESSITIES AND POSSIBILITIES

What has been said of the general condition of educational affairs in America was deemed necessary to indicate the lines upon which a model medical graduate school might be organized. It is to be a very important part of the general educational system, and the latter must of necessity be outlined. No department of instruction has so seriously suffered as has the medical, by the inefficiency of the haphazard methods in vogue. Practically for many years, licensed freedom of medical education prevailed. During the last few decades laws have been enacted which, to a certain extent, regulate the efficiency of the medical schools, which really needed it the least, but under the guise of personal freedom, the caring for many millions of the sick by ridiculous methods is permitted, and quackery of the most seductive form flourishes under a thousand disguises. Imperial governments in most civilized countries, accepting the logical conclusion that individuals whose lives are devoted to assisting those in danger and pain are most competent to dictate the attitude of the people toward disease, have decreed that the regular profession, and that

only, should be recognized; but America, with its regard for personal liberty, has, to a great extent, given the citizen the privilege of self-guidance in health matters.

The field of medicine presents certain peculiarities which must be taken into account in the solution of the vexed problem of regulating medical practice and educating medical men. Whereas in general education more or less freedom may be allowed individuals or institutions, with the expectation that experience and contact with more gifted men will eventually counteract and modify the misguided, in medicine insufficient or improper teaching results in excessive harm, and naturally demands more regulation from the beginning. As we have stated, however, if, upon presentation, a given institution possessess apparent elements of sufficiency the state is extremely loath to curtail its privileges. As legislators and solons are generally incapable of proper judgment on such matters, and as the influence of the better part of the profession has not been powerful enough to prevent it, low grade medical schools and colleges naturally abound. The attitude of the general public toward the profession also has much to do with the inadequacy of average medical instruction. As there is no directing power except the voice of the people, too often expressed through legislators incapable of judging, and as the people themselves are absolutely ignorant of the importance of supervision in these matters, every attempt to legislate or supervise medical edu-

cation is opposed. It must be acknowledged that a great deal of this opposition is due to apathy, and lack of organized effort on the better part of the profession. However, what concerns us is that the condition does exist and that strong efforts and earnest work are necessary if our system of medical training is to keep pace with general educational advancement. In medicine, as in other pursuits of life, that same individualism which characterizes our people has made a strong impress, and many an American has written an indelible page in the history of our profession. We are considering, however, the means of establishing a system whereby the general mass of our fellows may be materially elevated and the people at large distinctly benefited. The profession, as a whole, has made immense progress and our best schools, though far from being models, are beginning to be recognized as gradually approaching the European standard. As the latter, however, has been developed through centuries and is practically maintained and controlled by the government, the difference is not to be wondered at.

The conditions are virtually the same as those considered under the head of general education: Too many schools, too low a standard, the evils attendant upon excessive individualism and specialization; and the remedy is similar; namely, generalization of culture by various means, one of the most important of which is the establishment and maintenance of proper post-graduate schools, which will

keep the physician a student during his active life, and ever under the influence of the university spirit.

The excessive individualism of the modern medical man, and the evils resulting therefrom, are apparent. Take, for example, an average country doctor. While studying in a district school he conceives the idea of becoming a doctor. After a year or two in a high school he presents himself at the medical college. He is told that his primary education is somewhat deficient, but that he can "read up." He enters, graduates after three or four years, and hies back to his county. If possessed of reasonable personality and polish he becomes a personage of importance in the community. He is ambitious, morally and mentally sound, but his community is not rich, and the time and money necessary to increase his store of knowledge by travel and post-graduate work make it almost out of his reach. Still his individuality asserts itself. He reads a few journals, belongs to his county society, and in his borough is the autocrat, and the center of an admiring group. In consequence of this he eventually becomes dogmatic and an extremely difficult man to meet and deal with. This statement is not made in disparagement, for he may be, and frequently is, a conscientious, honest and compassionate man, of good mind, who, had he been given the opportunity, might have gone much further towards perfecting his professional knowledge. Moreover, I know, too intimately, the self-sacrificing, arduous

life of the country doctor to speak slightingly on the subject. I am pleading for a way to reach him and breathe on him the spirit from the university, which shall keep him mentally expansive, and for the establishment of a medical educational system which shall be accessible to all physicians. This is a great undertaking, but its importance is so manifest and its possibilities are so potent that it is bound to attract the attention of all educated people.

The study of man himself and his evolution, organic and social, is now monopolizing the attention of scientists, philosophers and physicians. The perfecting of the spiritual man of the future demands a co-ordination of many educational agencies, and serious and long-continued studies, to which the priest, the scientist and the physician will contribute largely, and in which the whole people will participate, for it is practically impossible totally to disassociate organic from social or spiritual evolution. To prove or disprove this to physicians implies infinitely more knowledge of man, physical and mental, than we possess, and indicates the necessity of progress in our chosen work.

Co-ordination of workers and correlation of working agencies correcting and guiding but not interfering with individualism and specialization point the way to progress. Probably no workers are more individualized and specialized than physicians, and because of this none stand more in need of organizing agencies. Even now the profession is awak-

ening to the necessity of the times and a correlated system of societies is being established which marks an era in the history of medicine.

Far more important, however, is destined to be the post-graduate education of the future, if properly organized, through a great, broad, medical university, or a union of post-graduate medical schools.

Every profession feels the need of such a system, and the medical more than any other. With a medical man the rapid co-ordination of educational institutions must find its counterpart in his individual development. Medicine as a science has just been born. From 1606, when Harvey first announced to the world his potential discovery, to the present day, the zeal for original research has grown and the marvels of such research have astounded the world; and day by day the student and the practicing physician are called on to readjust all their previous training in accord with a new point of view. Within the memory of one man's life may be summed up the wonderful advance of modern medicine. As examples, may be cited the development of preventive and curative inoculation; the birth of preventive medicine; the use of anæsthetics; antiseptic surgery; the advanced treatment of diseases of the brain and nervous system; the study and practice of national and international public hygiene. It has been well said that "not only is medicine an exact science, but it is also a network of sciences." As the medical profession, more than all others, embraces in itself all sciences, the physician must se-

lect from each that portion which correlates with his own. All this knowledge must be classified and assimilated, and when it is further complicated by the fact of ever-progressing research in all directions, it is at once apparent that the physician must be furnished with post-graduate courses, whose teachers will have weighed closely and correlated this ever-expanding mass of apparently dissociated facts, and will be prepared to present what is valuable in a concise and practical form of instruction.

Professor Daniel C. Gilman tells us that: "Medical science is very complex; it is rather a network of sciences. Medicine and surgery are based on pathology, pathology rests on physiology, physiology on chemistry, chemistry on physics, and physics on mathematics." He then goes on to sadden us with a recital of the essential requisites for the model, modern physician. Add to this the necessity of a reasonable knowledge of foreign languages and the technical, strictly medical data which must be mastered in detail, and one does not wonder that physicians entering on their life's work are really only beginning a life-long study, and that many tire and many fall by the way, overpowered by the immensity of the task; neither is it strange that, anxious to begin and to do, numbers are allured by seductive curricula promising speedy results.

Every year the requirements for entering select medical schools are made more difficult, and the larger colleges are now affiliated with the universi-

ties, as is the case with Harvard, Yale, Cornell, Chicago, etc. Thus the university spirit is being cultivated and the idea of knowledge for knowledge's sake, as well as truth for truth's sake, is being rapidly developed among medical students.

Under existing conditions the university says farewell to her sons at the most important period of their education. They enter into practice, and the specially studious or intelligent, or those who have influence, make their way, and by constant intercourse in the large cities with mature physicians and surgeons, by visiting hospitals and attending clinics, by membership in medical societies, by foreign travel, and by the varied and extended practice which a city affords, these few men sustain themselves, and, in many instances, attain the highest professional honors. Often such men would do better under a system which would be related to not one, but all universities—thus retaining the university spirit and methods—to which, at the same time, they could turn for help in their individual perplexities, and to which they could often contribute their own valuable experience. Unfortunately, however, the larger number of young physicians are cut off from all advancement in their professional education. Many go to practice in small towns, or into the country, where few facilities for advanced study exist. Many retain their membership in medical societies, but a society can never replace a school. They can read, it is true, as an infinite number of magazines and journals are

published in the interests of the profession, but reading is unsatisfactory, as so much ground must be gone over before the fact is discovered which fits the needs of the reader. Men need the spoken as well as the written word, and these young men consequently feel unrelated and solitary; they desire the personal instruction which comes to a class under a good teacher; they need to discuss their problems with men of larger experience; above all, they need to have demonstrated to them the working of modern medical progress, the certainty which comes from seeing and being in touch with men who are the leaders of their profession. All practicing physicians, in a word, require the stimulus which comes from the "group opinion."

A school of advanced medicine for men who have recently graduated, and for others who are practitioners of experience, many of whom may be of high standing, must be organized on other lines than those required in a school for under-graduates. The work must be condensed and specialized, and every facility for practical demonstration must be afforded, so that the student who has completed his academic course and acquired some post-graduate knowledge, and even has been in active professional life, may co-ordinate his education and his experience.

CHARACTERISTICS OF A MODERN MEDICAL UNIVERSITY SYSTEM

A modern medical university system must stand for the ideal of the present, and be such as to properly co-ordinate with the present American system of general education, as well as with the undergraduate system of medical studies. Therefore, it must be democratic, broad as humanity and free from medievalism or ancient prejudice. It must declare the open door, abolish entrance examinations, as well as proscribed studies and time requirements, and by gentle guidance must foster the spirit of working for the love of work. As Henderson says: "If the amount of energy which now goes into keeping students out of the university could be turned to account in helping them after they get in, the cause of culture would be considerably furthered."

If a medical man be licensed by the state, then should the means of advancement and perfection never be denied him. More than that, this university must be positive and aggressive, and considering all physicians its rightful subjects, must push out into the medical world and bring all that it possibly can into the fold, and once possessing them, must never relinquish its hold, but by the at-

tractiveness of its work keep in touch with them throughout their active life. To succeed in this, it must be artistic in the sense that its work must be accurate and complete; it must present all or any medical work that can reasonably be found anywhere, and the manner of presentation must be pleasing as well as practical.

The recital of these general characteristics is only intended to show how benevolent is its purpose, how far-reaching are its possibilities, and to indicate the lines upon which its manifold advantages should be developed.

Upon serious reflection regarding the complexity of modern medicine, however, it is evident that no one institution can fulfill all the requirements. To offer attractively to all physicians at all times all that any one of them may desire, and to do this artistically, so as to encourage all the enthusiasm of individuality, necessitates so much specialization that no one school could possibly satisfy the demand. For this reason, from the beginning of this description or plan, we have considered it as a system, meaning thereby to convey the opinion that the ends to be attained demand the maintenance of a system of individual schools so correlated that while all shall properly present the general educational facilities necessary to the mass of the profession, most of them shall embrace some specialized form of instruction which certain students may desire to pursue.

A system of graduate medical schools organized

in the manner suggested must prove of immense value to the profession as well as to the community, both by reason of its practical teaching and by dissemination of cultural influences. The plan is perfectly practicable and feasible, and needs only proper organization from the start, considerable labor in perfecting details, and some money, but the results are bound to be more important than any one who had not given the matter a good deal of consideration can imagine.

The simplest manner of making evident the benefits to be derived from such a movement is to describe the organization, functions and future scope of a model post-graduate medical school, such as would properly represent a unit in a co-ordinated system which might be established in a large metropolis like Chicago. It is difficult to realize how far-reaching may be the influence of medical specialties if properly organized and maintained by men working in the right spirit.

In every largely populated center a number of graduate schools should be established, each of which should have common functions, besides which, however, each should be distinguished by offering to the profession certain specialized courses of instruction, or such special opportunities for original work as may seem most advantageous, either by reason of the qualifications of its faculty, the character or location of its buildings, or for any other valid reason; the work in these different institutions being co-ordinated by an executive

board, or by trustees, or by some university power; each of these schools, however, retaining its individuality so far as may be found practicable, and consistent with the promotion of the necessary competitive ambition.

Such a system once established (and with the right spirit it can easily be done), there is little doubt that it will exert a most potent standardizing influence the country over.

AN ADDRESS DELIVERED TO THE FACULTY AND MEMBERS OF THE CHICAGO POLICLINIC* BY THE PRESIDENT, DR. FERNAND HENROTIN

Several months have passed since it was determined, after much discussion, that the Policlinic should enlarge the scope of its work and take rank as an institution of permanent educational value, and be a credit to its promoters and founders, as well as a benefit to the profession and to the public. The new institution was also intended to be of personal advantage to every member of the faculty, and I assure you that I sympathized with the personal point of view, as with as the larger educational outlook.

In furtherance of this decision, the old organization, known as the Chicago Policlinic, was abolished; a new charter was secured; money was subscribed and given; additions were made to the faculty, and a site was purchased for the new buildings. Then came a lull in activity, and during the past few months comparatively little has been accomplished. It is possible that some among you may believe that the enthusiasm, at first so virile, is now flagging, but the fact is that we are now facing the real difficulties of the situation. All

*Annual meeting, June, 1902.

who have carefully reflected on the matter must recognize that we have reached that stage of development which requires most deliberate action, and those of you who have given but passing thought to our plans, must now give it your serious consideration.

Medical men who have investigated the subject of medical education recognize two facts. The first is, that post-graduate medical teaching is destined to be a great factor in the development of the profession; the second, that institutions flourishing under this title in America are, as at present constituted, totally inadequate and of doubtful value. In other words, we all know that the medical student, however superior he may be to his predecessors, is ill fitted at graduation to grapple with the problems of health and disease, and, at the time when he is popularly supposed to be qualified to enter on his life work, his need is greatest for a practical school in which to pursue advanced studies. Our experience has made it plain that adequate facilities to accomplish this end cannot be obtained in the present grade of graduate schools. To remedy these conditions and meet the practical demands of the medical profession, we must carefully deliberate over our proposed plans and give to the immense task before us the benefit of our sincere and enthusiastic cooperation.

The Chicago Policlinic has a faculty admirably adapted to formulate the plans of the building of this advanced school. Its members are all men of ac-

knowledged capacity; they have the practical experience which demonstrates the inefficiency of the present system, and better than all, are free from the conservative traditions which so often hamper advance in long-established schools, and thus they are, as a body, specially qualified to take this great task under advisement. Never a day passes that I do not give more or less time to the elucidation of some of the problems involved in the question of the evolution of a curriculum which will fully meet all modern requirements. If we succeed in doing this, and in building and organizing such a school, it would serve as a model to be followed by other medical institutions, and better than all this, it would establish a standard to which existing post-graduate schools would be obliged to conform. Johns Hopkins offers facilities for post-graduate work of a high grade, but it is infinitesimal in results, and only emphasizes the need for the universal establishment of schools of this class. Harvard has already made a beginning and will set the pace. Why shall not we, who propose to specialize on these lines, do the same? The other post-graduate schools are, like ourselves, apologies, born of circumstance, but not of a type to be maintained without reconstruction. Medical education is advancing and changing, and to keep in line with modern progress, we must needs change our methods and build a greater policlinic.

We should be very deliberate and take to heart the lessons taught by others, and, as we build,

should strive to meet the demands of advanced medical education, and make no blunders through lack of careful consideration. By doing this we shall rear an edifice of value to the world, as well as to ourselves. Several causes have operated to produce the graduate school of to-day. With the recognition of the immense progress made in medicine and surgery, there arose a desire for larger opportunities of study and practice, and physicians began to roam the world over to see and hear men of special repute. Many went to Europe, some merely to take a superficial view, others to perfect themselves by serious work. A larger number, who could not leave their work or spend the money necessary for extensive travel, went to adjoining cities, where medical men, recognizing the increasing demand, had established clinics for the special edification of these roaming bands. From a consolidation of these clinics has arisen the post-graduate institution. Hastily organized, without consecutive curriculum and with little thought of definite method, beyond the desire to supply the immediate demand, and often with the sole idea of enhancing the individual popularity and position of the founders, it is not surprising that there is much in these schools which is undesirable.

Being about to erect new buildings and enter on the second stage of our existence as a professional school, it is eminently proper that the Chicago Policlinic should be reorganized and rebuilt to conform

to modern ideas and to fulfil a higher destiny than the institution we are now leaving.

You have before you this evening a commencement, on paper, of the plans for a composite building, which represent some of the ideas considered absolutely necessary in the construction of a medical school. No doubt you are apprehensive lest our resources be totally inadequate for its erection and maintenance. You have practically pledged all your medical possessions to the furtherance of the new plan, and when brought face to face with its necessary details you hesitate at the risk. You have intrusted your all to the wisdom of your directors and have instructed them to borrow money, and are now awaiting the results with impatience. The plans here exhibited will, no doubt, call for the expenditure of more money than can be secured from our present assets, when viewed as an ordinary business venture. To curtail any considerable part of these plans will result in decreasing the usefulness and retarding the development of our institution.

It would be wiser to postpone our new venture and secure more funds than to be content with inadequate accommodations, which would militate against the consummation of our desires; namely, the erection and maintenance of a high-class modern and model institution. If you undertake to carry out the plans suggested as a purely business venture, you will not succeed; but if your idea be to build a noble institution of the character which I shall

later endeavor to describe, I am confident that, with a little patience, we can interest a sufficient number of men of wealth to advance the amount required for the undertaking.

I will now present, and commend to your earnest consideration, a condensed outline embodying my ideas of the value and importance of graduate schools of the kind which we are about to construct and maintain.

A MODERN POST-GRADUATE MEDICAL SCHOOL

ITS NECESSITY.

The demand for graduate instruction in itself indicates the necessity.

The elaboration of modern education makes it impossible for undergraduate students to secure sufficient practical instruction.

The complexity of modern science, or better sciences, makes it incumbent on the physician to study during his entire life.

The need of appliances and laboratory facilities makes it impossible for the modern practitioner to do complete work without them.

The importance and value of original investigation and research at the present time emphasize the necessity of working centers.

ITS VALUE.

To the Profession.—It keeps the individual physician at school and studying, with school ideals;

breathing university air, alive to university spirit and less liable to be affected by sordid motives and commercial extremes.

It brings medical men more constantly together, making consultations easier and more natural, and stimulating fraternal feeling.

It makes collective and comparative experiences possible, furnishing a center, in which is focused the "group opinion," thus subjecting each student to the healthy restriction which such an influence exercises.

It provides working libraries, consulting rooms and appurtenances and meeting-places for medical societies, or assembly rooms for physicians and patients, thereby assisting materially in the proper organization of the profession.

It establishes university-extension medical courses in the city and neighboring towns.

To the Public and the State.—It furnishes needed hospital accommodation in densely populated districts.

It helps to care for the sick poor.

It instructs the public, by carefully selected lectures in hygiene, public sanitation, preventive medicine, criminology, the care of children, etc.;

It assists in the management of emergency surgery and medicine.

It minimizes quackery by instructing the public in medical affairs.

All of this is simply a condensed statement of the subject matter of my pamphlet, which will de-

scribe a model graduate school of the kind we hope to see this faculty found. This exposition of the possibilities of such an institution may seem to you too sanguine; but "Rome was not built in a day," and why should we not plan on high ideals? we may cover acres with mortar and stone and brick, but if the proper spirit be not in the work, it will not avail.

Our charter distinctly states that this is a purely educational institution, not for profit—we have secured a remission of our taxes from the state under that plea—and our policy should be plainly and publicly proclaimed. A public announcement of our plans will rally our friends, create benefactors and enable us to accomplish the object we have in view. A straightforward statement of the principles which are to guide us in the attainment of the results announced as our aim, does not imply their immediate fulfilment. Those to whom we look for assistance must be certain of our motives. We stand for the advancement of professional and public medical education, and shall strive to attain this and expect to be judged by the results; but our motives must be clearly apprehended, and must never be impugned.

The new Policlinic building is to have capacious and satisfactory clinic rooms and laboratories and appliances of the most perfect modern type; but the most important question for our consideration is the formation of the school proper, the determination of the methods of teaching, the attitude to be

maintained toward the student, the profession at large, and the public, the curriculum to be adopted, and many other problems; and last, but not least, the internal administration of the institutions and methods to govern its faculty.

To borrow money and to put up buildings may seem difficult just at present, but these are really simple as compared with the maintenance and proper management of a school which will approximate the standard herein outlined.

The prime object of graduate schools is to facilitate and perfect the education of physicians. All varieties of practitioners need and demand instruction and assistance. They may be divided into the three following classes:

First: *General Practitioners,* who have no definite purpose beyond the desire to increase their general medical knowledge by witnessing the practical application of methods of cure as illustrated by teachers of more than average experience and ability, in clinics of more than the average number of patients.

Second: *Specialists,* attracted by the attainments of teachers, whose work lies in the field of their specialty.

Third: *Original Investigators,* who select such schools as afford the best opportunities for research and experimental work.

The first class should find, in a model institution, large and numerous clinics, conducted by competent, practical teachers and well-trained assistants.

The second expects large clinics, conducted by particularly distinguished and noted specialists.

The third demands a working school, complete laboratories, convenient anatomical and experimental departments.

The prime object of any graduate medical institution should be the attainment of these requirements. We have, or can obtain, competent practical teachers and distinguished specialists, but at present we lack the other requisites. If we adopt, in its entirety, the plan here exhibited we will have, and can equip, reasonably complete chemical, bacteriological, pathological, and anatomical laboratories.

There is no doubt, if we constantly bear in mind the desirability of encouraging our faculty, our students, and our medical friends in this work, that means will eventually be procured to found an anatomical school and a physiological laboratory, and I have in mind friendly individuals who are well inclined and almost ready to lend an assisting hand; but for the present, we must depend on the facilities afforded by our laboratory and anatomical department to furnish assistance in original and experimental work.

In the department of instruction there are several possibilities already touched on, to which I desire to draw your special attention. Benefit undoubtedly would accrue to this institution, to the individual members of the faculty, and to the profession of the surrounding country, by the establish-

ment of medical extension courses. If a bureau of correspondence could be established in this department under the direction of the faculty, I believe the results would be beyond our expectation, and the educational value of the movement fully demonstrated. A secretary should be appointed, who would correspond with all the local medical societies within a radius of 100 or 150 miles of Chicago, and wherever a society of sufficient numbers should petition, the directors would appoint a member of the faculty to deliver a lecture on the subject selected by the petitioners. The value of such a movement, properly conducted, is undoubted, and I commend it to your serious consideration.

Instruction of the laity, by lectures on selected subjects, comes properly within the scope of this department.

We often wonder at the ignorance of the general public in regard to matters of health, but our pity never extends to the point of affording them dignified, reasonable instruction. It has come to be considered a breach of professional decorum for a physician to attempt publicly to instruct the laity. This is wrong, and I believe the time is at hand for a radical change in the relation of the physician to the public at large. It is within the province of this and kindred schools to appoint, at regular intervals, members of its faculty, or other noted physicians, to deliver dignified, non-sensational lectures on subjects relating to public health to the neighboring public. The profession heretofore has failed to

recognize the power of the spoken word. Pseudo-healers and quacks have their temples, but quackery and fads will receive a hard blow when medical halls are established where the voice of medical truth can be heard on matters of public weal.

One of the most important of the new departures from the beaten lines of the present post-graduate teaching, however, is that which refers to the relations of the school to the physicians in its immediate neighborhood. Our great weakness is in the paucity of clinical material. If we were sufficiently wealthy, as are some dispensaries and hospitals, we could procure patients in large numbers by offering them material advantages. We are not wealthy, however, and we know that this system is essentially wrong; it pauperizes the recipients and robs our professional brethren. The one true and reasonable solution of the dispensary evil, and the betterment of our clinical facilities, can be attained only by the affiliation of all the members of the profession in the district tributary to the school.

Make the Policlinic a working school for the physicians around us; give them entrance to our building at all times free of charge; furnish them with laboratory facilities and opportunities for anatomical studies at cost; provide meeting-places for them if they wish to congregate; let them have consulting rooms for patients they wish to examine; allow them to treat patients in our hospital; open the doors of all clinics, subject only to house regu-

lations; and, in fine, give them all the privileges we claim as ours, excepting those of governing and teaching.

There is nothing impracticable in this, and though they will not throng the building at once, they will join us eventually, and with mutual profit. At present medical schools are looked on rather adversely by neighboring physicians, but when they recognize that our school is their school, the problem of satisfactory clinics without a dispensary evil will be solved, and much of the medical work of that part of the city will be done in and through our school, and neighboring physicians can ignore us only to their cost. When medical knowledge is disseminated among the people no physician will be able to thrive and practice who has not a direct school and laboratory connection. The day is near at hand when in our school laboratory any physician in good standing can always find a desk, a microscope, and an instructor.

Professor Triggs, of the University of Chicago, in a recent address to the graduates, which has attracted a great deal of attention, said: "The graduate fresh from college is fatally weak in originality and creative spirit, and finds no place in the world which his years of training make him capable of filling. These young people are not being trained for the conditions they must actually meet. For the most part, the attitude of the educators seems to be one of indifference. The ideal of culture upheld in

the colleges can be effective for the individual in a case of comparative idleness only."

He finds the remedy for this condition in the establishment of practical, working schools. Though this was said concerning students training for business careers, it applies equally to medical students.

The complexity of medical study and the large numbers of students, limit college work almost entirely to a curriculum. After the college course come the grinding for life and the loss of ideals. The recent graduate, unless he be among the chosen lapses into indifference and mediocrity, crippled by the loss of his school just at the time he needs it most. There can never be a less number of post-graduate schools, for the movement is still in its infancy. Let us not fear to plan and build, but let us build aright, so that this institution, by its priority, its methods and its high standard, may be classed among the best.

This address comprehends certain functions of importance which demand special consideration, because they are not usually regarded as within the scope of medical teaching—at least not to the extent herein outlined. I desire now to discuss these subjects more in detail, because they are most potent in their effect on the medicine of the future, and will simply cite the sequence of action, which it is the hope of the faculty of the school with which I am connected to realize in the near future.

When the doors of the school are opened, every licensed physician in that division of the city will receive an invitation to attend the dedicatory exercises, and will be informed that he is welcome to all the privileges of the school so long as he resides in that section. He will be invited to bring such of his patients as need hospital treatment to our institution, where, if they do not occupy ward beds, they may remain in charge, subject simply to compliance with the regulations. He will be informed that at all reasonable times he can obtain material for anatomical work practically at cost, and can participate in all instruction given; that he may bring specimens to be examined at our laboratory, being charged only the cost of material; that he may use our microscopes, procure all material for examination or experimental work, and, moreover, that at all reasonable hours he will be assisted by an instructor in the elucidation of any perplexing problems. More than this, when he so desires, he may bring his private patients to the hospital for examination, and will there find a convenient, well-lighted consulting room, with modern appliances and instruments, and a trained nurse in attendance. He may there also meet any other physician in consultation, convene his local society in our hall, attend all clinics free of charge, and, if he is interested in any particular variety of demonstration which are infrequent, may leave his name with the secretary, who will advise him when such demonstrations are to take place. In fine, he may consider

our school *his* school, with all privileges, except that of teaching, and it will remain so as long as he resides in that portion of the city and he does not abuse the privilege by infringing on the necessary regulations.

Besides all this, systematic courses of lectures will be given by selected experts on various topics of interest, a regular schedule being prearranged, and all neighboring physicians being notified of the day and hour.

In return for all these privileges and advantages, which will be entirely free, we shall expect our institution to be recognized by the physicians as the medical center of the district, and shall expect them to assist us in building up and maintaining large clinics by sending such patients as they do not desire to attend personally; the object being to furnish material for demonstrations as much as possible through medical recommendation, thereby minimizing the so-called dispensary evil. If we occasionally take a poor patient who might pay a small fee, all concerned will realize that we are paying for the unintentional wrong by valuable instruction.

Physicians may also bring patients suffering from rare or obscure affections to the public clinics, retaining control of them, and may thereby secure, free of charge, advice and counsel from men of wider experience.

To the medical men of the neighborhood is given a medical home, which they must assist in

keeping up to a proper standard, so that the exchange may be fair and loyal. The physician residing outside the district is always willing to assist in sustaining the institution, provided it furnishes him with the requisite assistance to a progressive betterment of his condition. For him there will be the large, continuous, well-arranged clinics, conducted by the best experts that can be obtained; chemical, physiological and pathological laboratories; opportunities for anatomical study, and instructions for every reasonable detail of work; also well-arranged lecture courses, to be given by selected men, not only at the institution, but, as mentioned before, in surrounding cities.

The fees will be as reasonable as it is possible to make them, and will be progressively lessened, so that after any physician has contributed a certain amount to the support of his post-graduate school, he shall thereafter be known as one of the fellows, to whom the doors of the institution shall always be open, free from all further fees for instruction. More than this, it might be advisable to select from among them representatives for the trust board, who would assist in shaping the policy of the institution.

When such an educational system has been established and made permanent by an assured administration, it is absolutely certain to become a necessity to every practitioner who resides within a reasonable distance. After a time, it is probable that life memberships might be made purchasable

for a certain sum. This will be advisable when the time has arrived to abolish the granting of degrees or diplomas by post-graduates medical schools, of whom I will speak later.

The service which the country practitioner requires is often restricted to a few hours, or a day, or a few days. If he happens to have a little spare time he runs in for a few days to obtain the latest information on a certain subject, or make a certain experiment, or examine specimens personally. If he is about to perform an operation, he comes in for a few hours to make an anatomical demonstration of the operation in advance. If he accidentally comes to town, he spends his spare time at "his" school. He will be kept informed by the Bureau of Information of constantly recurring courses of lectures on given subjects, and such as attract his attention will bring him in, for as he does not have to remain any given period of time to get the worth of his fee, he can go home in answer to an important summons and return when at leisure. For these and many other reasons it will be advisable to establish certain conditions and to furnish constant inducements whereby men will become attached to their graduate school for the span of their active life—the result that all modern educators are endeavoring to attain.

With a faculty constantly going out to deliver lectures or illustrate physical demonstrations, with a bureau established to keep the fellows informed of what is going on, and with men coming to the

school at short intervals, it is easy to perceive that a large circle will constantly be living the larger life, which means living in the lives of others. The individualism of the physician has made this necessary. Medical societies are co-ordinating in their work, colleges are becoming part of universities, and post-graduate schools must find their place in the modern system or fail in their mission.

The instruction of the laity by the medical profession is the rational and permanent cure of charlatanism.

If it be within the province of the university to instruct all adults, each to the measure of his needs, to the same extent is it proper for the medical university to instruct people in medical matters. It is time that the medical profession came out into the open and demonstrated to all people the validity of its claim to be recognized as the sole authority on matters of health. Many well-informed people recognize the standing of medical men, simply because of their knowledge of the immense amount and high character of the work which is being done by the profession; but millions of men and women of reasonable intelligence and education, practically ignorant of this, intrust their most valuable possessions, life and health, to charlatans and to chance, though they would not enter court without a lawyer nor build a house without an architect. Almost all of this is due to ignorance of modern medicine, and much of this ignorance is due to the neglect of

the profession in finding a way to bring knowledge to the door of the masses. For centuries the so-called art of medicine was so uncertain that it may have been proper to work diligently and in silence, but the medicine of to-day need not fear to instruct and proselyte. Its achievements in the last few decades entitle it to positive and favorable estimation with all reasonable persons. We indorse and encourage puerile laws enforced by police powers to subjugate the blatant quack, and treat with ridicule the pseudo-healers of Christian spirit, who drift about in countless numbers and die for want of knowledge of what medicine really is, instead of bending to the task of furnishing them with the information required to set them right. If Christian Science two decades old can build temples in which to preach a beautiful theory of healing, which does not heal, certainly our noble profession may teach the art built on centuries of observation and noteworthy achievements.

Though it may now be advisable to have attorneys connected with state boards of health to protect the ignorant classes from the most glaring offenders against the medical practice laws, and to endeavor to promote such legislation as will make this task more successful, intelligent physicians cannot believe that quackery or pseudo-healing, or irregular medical practices of any plausible variety, can be eradicated by police or legislative action. Coercive measures usually prove circuitous and uncertain, while the results obtained by appealing to the intel-

ligence of the community are much more permanent.

While rightfully proud of what has been accomplished by our profession, we must be willing to acknowledge how far we still are from being able to claim positive and accurate knowledge in certain branches. Though we are probably on the verge of medical discoveries which will startle the world, we have not as yet accomplished, outside of surgery, results sufficiently positive to merit the approbation of all people. Moreover, in our own ranks there are too many who, because of lack of knowledge, or too much assumption, bring discredit on our achievements. Premature decay, suffering and death still attract the attention of the unknowing public and blind them to our really wonderful advancement. A dignified exposition and explanation of medical progress by competent medical men is certain to bring the conviction to the minds of numberless people that their safety lies in loyalty to the regular profession. The hundreds of thousands of adults who last year attended the public courses of lectures given in New York under the direction of Doctor Leipzinger, and in Chicago, under the auspices of the *Daily News,* furnish the strongest possible testimony as to the value of this form of instruction. Is it not probable that medical lectures would meet with as much approbation and accomplish as good results as those on other subjects?

With a fuller knowledge of what is compre-

hended under practice of medicine, must come an increased interest in its development, and this applies to the public as well as to the physician. The knowledge of the human body and the betterment of physical conditions is too personal not to excite interest if properly presented, and this increased interest is certain to engender assistance. Physicians bewail the lack of support in the development of their institutions, but do not recognize the fact that much of this indifference is due to their own neglect properly to present their wants. Granted that such public instruction on medical matters for adults is desirable for the benefit of the profession, as well as of the people, it at once becomes evident that it is an important function of the post-graduate school, for it is nowhere to be found, cannot well be given in an under-graduate college, nor can it acquire the necessary importance and inspire the proper confidence unless given by physicians of mature minds, selected by their fellows and indorsed by an institution of medical learning.

The education of the laity in medical affairs and the assistance rendered to the practitioner must inevitably lead to certain results which become evident when we consider these functions jointly. The objection may be urged to this combination, that it is bound to fail, because medical men will not join in the movement. The answer is that it must succeed if a reasonable amount of persistence obtain and that it is the joining of the two which insures

success. If the public be properly informed it will become interested, and if interested, it will assist. If this be the case, the medical men who have become parties to that instruction and to the means thereof will become the subjects of solicitation and will profit to the extent that they have labored in this field.

The graduate school of a district will become the focus of medical knowledge, a temple of medicine, we might say, for so many people will regard it; and the medical men of that locality are certain to be judged and patronized to a considerable extent by their relation to the center of medical knowledge. Undoubtedly, a certain number of physicians of age and experience will be independent of and in no way related to the school, but if the proper type of instruction and assistance be maintained, the younger men cannot but recognize the advantages to be gained by affiliation with the new power and must rally to its support and the fulfilment of its mission, or suffer materially if they persist in their indifference toward the standardizing agency of their surroundings. People will soon begin to discriminate, and after becoming reasonably well instructed, will employ preferably such physicians as they know are constantly at school and learning. This must insure the success of the new departure, provided the policy of the institution remains of the broad, democratic type.

Lern-freiheit:—Freedom in teaching, liberty in learning, must ever remain its motto. Its faculty

must be large, its fellows numerous and its door open to all practitioners of proper spirit. It would be, however, derogatory to the intelligence of our men to say more on the personal, commercial side of this argument. The graduate school of this type aims to be the workshop of the physician, equipped with all desirable tools and appurtenances and the fountain head of honorable professional aspirations, and if it possesses and freely places the former at the disposition of such as desire them and its founders cultivate the spirit which makes the latter possible, must directly spring into favor. Such an *entourage* as is proposed, however, which seems to us essential, necessitates the utmost care in its organization and management; a tactful but firm administration lest the various elements concerned in the whole conception be disordered by disturbing confusion. It is no mean task to properly govern an institution involving such multifarious functions; it implies an administration founded upon such harmony of its executive and teaching bodies as is not easily obtainable.

The discussion of this particular phase of the subject of medical post-graduate instruction could easily be extended so as to fill a small volume, and the vagaries of medical quackery could be traced through centuries of evolution to its modern embodiment in Christian Science, divine healing and Dowieism, were it not that reasonable reflection on the matter cannot but convince the reader that the ignorance which upholds and supports this heresy is

due simply to lack of proper agencies for medical teaching. The establishment of medical university extension lecture courses given by selected men to the laity in all populated centers will mark the progressive decadence of all irregular methods of caring for the sick. The more the public is informed on medical matters, the closer it will come to the regular physician, and the higher the standard it will demand. The character of the demand will standardize the supply.

ADMINISTRATION IN A MEDICAL UNIVERSITY

To co-ordinate the functions of many diverse schools of medicine, only a few of which have been mentioned, implies organization of a rather complex type which, at present, can only be outlined, but which will be indicated by experience. The future development of this important movement will demonstrate needs which cannot be determined in advance, but certain elementary necessities must be recognized, that a proper beginning may be made possible.

It is probable that at some time medicine will simply become a branch of learning in the future ideal general university, and that all parts of medical teaching will properly come under the sway of college administration. Schools of pedagogy will instruct selected men to become teachers of medicine, law, and all branches now taught in professional

schools, and this method has much to commend it. Many branches of medicine, for example, at this very time, are being better taught by men who are teachers, and not practitioners. But we are hardly prepared for this charge, and many problems are yet to be solved concerning the best administration for a correlated system of specialties. This becomes evident if we bear in mind the advisability and propriety of taking into account, and if possible of bringing into harmony, the many professional schools already existing, which have sprung into being in answer to a defined demand.

The greatest hindrance to advancement in the professional medical school of the day lies in the character of the administration. With few exceptions, these schools were established by men actuated by the common ambitious motive of elevating each of the promoters. Most of them had a board of ornamental trustees, generally personal friends of the faculty, who were never called upon except on special occasions when it was advisable to impress the public; most of the professors were of the individualized type and lacked the ideals necessary to progress. As the original promoters grew prosperous, their sentiments toward their school became modified, they became proud of their conception, they improved and adorned it, and many of them eventually idealized it even to the extent of endowment; but practically, during the life of most of the founders it remained their school and was more or less narrow. Gradually it became an in-

stitution of note, as the public spirit of younger men prevailed, the individualism which clogged rapid progress disappeared, and it became capable of valuable public functions; so long, however, as these were administered solely by its faculty, it failed in its entire mission as a public teaching agency.

An owning faculty can never completely or properly conduct its own institution. A school can belong to no one controlling interest; essentially it must belong to the race it is destined to educate. The inability to realize this underlies many failures in the educational line. Government by the faculty has proven a disappointment in almost all educational institutions, and is to-day the cause of inertia or dissension in many post-graduate medical schools. Every institution remaining independent should be governed by a board of trustees willing to recognize the faculty as authority in the work of teaching, only one or two of this board being members of the faculty.

As regards the management of a correlated system of graduate schools, there is this to be said: If they become affiliated with or a part of a general university, of course they will submit to the authority of the university trustees the same as any other department. Or a number of schools could unite and elect a governing trust board composed of outsiders interested in the movement, with a representative from each separate faculty. Or, again, they might possibly do satisfactory work under the guidance

of a board of trustees chosen entirely from the different faculties, though the success of the latter method is problematical.

The establishment of schools, the ordinary functions of which I have endeavored to describe, does not, however, necessarily constitute a medical university. The usefulness attained by the correlation of the functions of a system of such schools will be the establishment of a standard of the whole by whatever name it be called. We choose to call it a university because our ideas are that it should aim to be a process of the whole as regards medicine, involving in its ideal the dissemination of all known medical knowledge to all people at all times and to each individual in the measure of his needs.

In every large metropolis these schools are to be maintained as described. Besides these, however, or as a part of these, must be established buildings devoted to the study of certain specialties already known, and opportunity offered for the development of original research on lines thus far barely outlined. The location of these is to be determined by local advantages. Original research, which demands biological study or complete chemical and physiological laboratories would naturally be pursued near the university; that which is dependant on anatomical demonstrations should be carried on in close proximity to large public mortuaries or anatomical schools, while another variety, involving deductions to be reached by varied studies, would best be undertaken in a school near some great scientific

library, or therapeutical investigations near large hospitals. Clinical schools are to be located in districts that afford the best advantages by reason of the density and character of the population. If the different institutions are properly affiliated, students can obtain varied information on diverse subjects at a minimum of trouble and expense.

A thousand details might be dwelt upon, which would be of value in the perfection of post-graduate medical education. The imagination is busy with ideal curricula and with the construction of ideal hospitals and laboratories and institutes of physical culture and electro and hydro therapeutic palaces and an infinite number of special features which, if properly directed, the establishment of a medical university is bound to bring. However, to allow ourselves to dwell on these at present would divert the reader from a proper conception of the practical organization which it has been our purpose to present and which we have simply endeavored to outline.

We need a system of post-graduate medical schools:

To give to every physician accepted by the laws of our state that knowledge which he needs to keep abreast of his vocation and enable him thereby honestly to earn his living.

To further give to each, all that his intellectual wealth can apprehend, and to furnish to those who are able, the opportunities to advance where we may follow instead of leading.

To establish a high standard in our own ranks in

the only practical manner, under a government by the people; namely, by increasing the medical knowledge of that people.

To furnish our communities with all the publicity of our doings to the end that they may acquire knowledge of what we know, as well as that of which we are ignorant, thereby preserving our self-respect as men.

To offer the state all possible assistance in medical affairs, thereby proving our citizenship and our faith in the ideal democracy.

Let us build the first graduate medical school in the coming system, bearing in mind that the knowledge of a competent faculty, given power by the idealism of the university spirit, makes a university.

"The practice of medicine is a calling which gives employment to the utmost capabilities of human nature—all that is best in physical, intellectual, moral and social characteristics. It exercises the finest powers of sympathy, memory, imagination, observation, reflection and judgment."—Daniel C. Gilman.

"Closely connected with the development of the professional school is the development of the university idea. As has already been said, this idea was scarcely in existence twenty-five years ago, but now the spirit has taken, great things are to be expected and during the next quarter of a century important strides forward will be made in many centers of intellectual influence."

"I have not in mind an institution of charity or an institution which shall devote itself merely to the education of a man who shall be an ordinary physician, but rather an institution which shall push forward the boundaries of medical science, one in which honor and distinction will be found for those only who make contributions to the cause of medical science; one from which announcements may be sent from time to time so potent in their meaning as to stir the whole civilized world."—Dr. William R. Harper.

"The way to get the highest recognition is to deserve it; the way to get rid of the opprobrium attaching to the professional schools, is to remove the cause of it. In medicine this cause is fast disappearing. Anatomy, physiology and pathology have followed physics, chemistry and biology into the university. Large and well-equipped laboratories and libraries are devoted to these subjects. Large amounts of money have been given, so that the professors and their assistants, though as yet inadequately remunerated, are sufficiently paid to permit men who will despise certain of the delights of life and live laborious days, to follow these subjects as careers. Students are

taught, and important discoveries are being made in these branches. The physiologist is as full recognized as the philologist. The men and their subjects are on an equality, not because they have been made so by edict of sovereign or ruling of university presidents, or vote of trustees, but because they really are so. In the best semi-university schools the departments of the first two years are now on a true university basis; not so the departments concerned with the teaching of the last two years of the course. There is no reason why internal medicine, surgery, obstetrics, and certain other branches, should not be similarly elevated; on the contrary, for the sake of people who need help in time of illness, for the sake of the medical profession, on account of our universities, and for the prestige of the science of the nation, there is every reason for that elevation. And this would speedily be brought about if universities and their benefactors fully understood the situation."—Prof. Lewellys F. Barker.

THE STATE, THE UNIVERSITY, AND THE PRACTITIONER

Two additional elements are lacking to give full significance to American education. The development of industrialism to its proper position as an educational factor and the universal adoption of adult instruction.

This involves the education of the common man and the placing of a school at any man's disposal at any time for any service. The degree of culture that will evolve from the system will depend, to a great extent, upon how perfectly its different institutions are correlated and their functions co-ordinated. The solution of this problem is the reason of the educational activity of the present time in the line of university extension and the importance of this movement to the future state can hardly be over-estimated. The ever-increasing power of the uneducated classes is liable to tend to the development of the tyranny of a selfish form of socialism, while the accumulation of material wealth in the hands of a few may bring about a bureaucracy. At present the university, as the standardizing agency of our educational system, may truthfully be said to represent the hopes of our citizens for their future ideal state. All the universities have awakened from their dreams of tradition and have entered into this field

with an enthusiasm constantly becoming more intense. The older institutions of the East, spurred on by the fact that graduate instruction was being furnished by private associations, took the matter of advanced teaching seriously in hand. From the West, especially from the state universities, came the demand that the faculties take into proper consideration the education of the people as a whole. Gracefully the classics yielded until now a broad spirit prevails, not only aristocracy, but democracy of education.

Medical teaching originated with the instruction of the apprentice by the practitioner who had received his education abroad; then followed the medical college established by ambitious physicians for personal advancement. Competitive ambition of the latter, and the advance of modern medical science, involving complicated laboratory outfits, brought about affiliation and later organic union with the university.

The teaching practitioner is passing and the study of medicine is destined to be a department in the university. If tnatomy, physiology, the chemistries, pathology and microscopical studies are better taught in the university by men who devote their whole lives to it, is it not reasonable to suppose that when the appurtenances are secured the clinical departments will likewise be improved by this natural evolution of medical teaching?

Teaching and practice are distinct callings, demanding different temperaments, disposition and training. The old saying that "teachers are born,

not made" is outlasting most adages in its truthfulness. How many learned but unsuccessful practitioners we all know, who would surely find their place in the teaching medical field; and how many brilliant physicians are there of our acquaintance occupying important chairs, who, although accomplished and educated, make most indifferent instructors. To teach medicine or to practice it properly, each demands all a man's life. One always interferes with the other with the result, if carried on simultaneously, of failing in the ideal realization of both.

Large and perfectly equipped hospitals will be maintained by universities, where salaried professors will instruct medical students in all the details of their chosen work and by devoting their entire time to the task, better results will be obtained. Medical teaching will become an important department in the pedagogic college and careful analytical study of the needs of this class of students will enable the instructors of the future to correlate preliminary and subsequent branches to better advantage, so as to shorten the student period or increase its efficiency. It is not difficult to believe that students will become better informed in the details of their work, in the necessity for carefully developing a keen spirit of investigation and their capacity for careful examination into rare or obscure phenomena if directed by professors whose lives are devoted to their training, than when they are taught by men who, however able, are constantly hampered by the

demands of a large private "clientele," especially if it is borne in mind that their measure of success in life is usually gauged by the latter. The heart of some is in teaching, of others in practice, but each knows that he is constantly neglecting the one or the other.

These remarks are made with a full appreciation of the value of the services rendered our profession by the teaching practitioners of to-day, and the knowledge of the immense material sacrifices they are constantly making in their endeavors to promote the general welfare of the community and of their fellows.

We are simply discoursing upon the evolution of the art of teaching medicine and endeavoring to make plain its apparently inevitable future.

Therefore, I repeat that the undergraduate student in the near future will be taught by the professional medical teacher and his trained assistants, who, possessed of the enthusiasm which comes from fullness of the university spirit, with no competitive elements in their every-day life, will instruct him with greater success.

How else can we ever obtain the productive scholarship of the *privat docent*, or a realization of the right sort of original research? This presentation may seem ungracious to many men who have been so energetic and self-sacrificing in their work for the advancement of medical education, but is not this change surely coming, and is it not for the best? The millions with which to pay large salaries to ef-

ficient men, that they may devote their lives to this ideal work, will be furnished when its necessity is made evident and its importance acknowledged. These university professors may become the aristocrats of medical instruction, but working under a proper system will remain sufficiently idealistic to lay the foundation for a democracy of learning. It is a simple and natural evolution and delightfully acceptable to men of broad spirit. When, after a generation or two, the practitioners are all scholars from the university, what with the advance of applied science and the development of natural science, the general significance of the term "culture" will have changed, and the doctor of philosophy and his classical following will mingle with the masses, and the ideal democracy be approximated.

Progress in a state is said to depend upon a proper apportionment of idealism and realism among its citizens. In the medical profession the university professors will be the idealists and the practitioners the realists with functions equally important to future development.

The teaching sphere of the practitioner of the future lies in the post-graduate school and the refinement of medical education which is bound to obtain, will make these institutions an absolute necessity.

Our conception of such a school contemplates the establishment of an institution where the man now practicing and teaching will devote his life to the co-ordination and adjustment of medical affairs in general; and when we consider the number and im-

portance of the duties incumbent upon him it will be seen that the span of human life is not too much to give to this service. In brief, he will be expected:

To undertake the education of recent graduates at a time when guidance is most necessary and failures most frequent, by the practical demonstration of what he has been taught, that he may acquire experience as well as theory.

To perpetuate the university spirit under the influence of which the graduate leaves his school, and by so doing, prevent him from becoming too commercial.

To solve the problem of keeping the physician studying during his entire active career, by assisting him in his daily work through the maintenance of working medical centers.

To organize societies, establish libraries, edit journals, deliver lectures, convoke conferences, and thereby cultivate a true spirit of fraternity and a love of work.

To take up the medical education of the people and instruct them how to avoid and abort disease, how to make hygiene effective, how to develop physical perfection and promote mental and moral improvement.

To assist the state by developing the study of all forms of municipal and national medical problems such as the care of the poor of criminals and degenerates, the handling of epidemics, the sanitation of cities, the development

of proper hospital systems, the medical management of armies and navies and other comprehensive subjects.

All of these duties, which properly belong to the province of the practitioner, are to be made the subject of study and instruction in the post-graduate schools of the future and are entirely apart from the preparation of students and the pursuit of original research on scientific laboratory lines. Research work, however, of a practical kind, is to be given opportunities in the laboratories, where facilities will always be afforded for isolated workers pursuing special investigations, for the proving of therapeutic problems suggested, it may be, by university workers, for the elaboration of mechanical methods and for an immense amount of work which the properly trained university medical student is certain to demand.

These statements regarding the medical work of the near future are made to demonstrate how necessary it has become to plan an educational system for medicine sufficiently comprehensive to supply our needs, and to indicate that the rise of the present totally inadequate, so-called post-graduate schools, has its origin in the restlessness of the mass of the profession, the individual members of which, possessed of the spirit of American progress, are striving to find a way to make their life work of value.

These changes in the duties of the practitioner are not going to occur at once, for it will be many years before the vast resources necessary to teach

medicine properly in universities, will be obtained; but their certainty is so evident that preparations may well be made by establishing post-graduate facilities of the proper type before the people and the profession are over-run by a multitude of irregular institutions which can only confuse and disturb them in the future. Were it only to afford proper opportunities to the ordinary physician, these schools would be of great value, but a realization of their many possibilities in the line of public benefit can hardly fail to indicate their necessity. We cannot, as does Germany, order our university professors out over the land to teach all who need the learning, but we can establish institutions under university guidance, governed by proper administration, to begin the work. American education, to be successful, must be made a lifelong process, and in medicine, as well as in other branches, it can never be properly systematized until provision has been made for adult instruction. This ideal of general culture once attained, and our workers possessed of the university spirit and the zeal of Americanism, we can confidently look to the American Medical Forum for announcements of supreme value to human kind.

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